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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,322	05/01/2001	Nobufumi Mori	Q64266	2257

7590 07/03/2002

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
Suite 800
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3213

EXAMINER
PHAM, HAI CHI

ART UNIT	PAPER NUMBER
2861	

DATE MAILED: 07/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/845,322	MORI ET AL.	
	Examiner	Art Unit	
	Hai C Pham	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

3. Claim 9 is objected to because of the following informalities:

- Line 11, "*a* color-forming component A" should read --*the* color-forming component--.

Appropriate correction is required.

Double Patenting

4. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in

scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

5. Claim 1 is directed to the same invention as that of claim 1 of commonly assigned, Application No. 09/844,276, filed 04/30/01 (Pub. No. U.S. 2002/0018188 A1). The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-5, and 7-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubo et al. (U.S. 6,303,259 B1) in view of Mizutani et al. (U.S. 4,734,704).

Kubo et al. discloses a method of recording an image on a heat and light-sensitive recording material in a printing system, which includes using a light of three waves having different wavelengths for image signals to expose the heat and light-sensitive recording material to form a latent image, a heating developing device for heating the latent image, and an UV light to fix the developed image (col. 3, lines 36-59), the recording process being performed in the above specified sequences.

Although Kubo et al. does not explicitly disclose the physical sections of the printing system, they are however well established the printing art. Mizutani et al., for example, discloses a thermal recording apparatus comprising a casing section (2), which encases a heat-sensitive recording material (1), a recording section (thermal head 21), downstream of the casing section for exposing the heat-sensitive material, and a thermal developing section (cover 31a housing the light source 34 for developing), downstream of the recording section, for developing the color image by heating.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the different sections of the printing system as taught by Mizutani et al. in the system of Kubo et al. since such housing is well known in the printing art, and the implementation of which would require only routine skill in the art.

Kubo et al. further teaches the recording light having an intensity maximum at wavelength selected from a wavelength range of 300 and 1100 nm (RGB light), the thermal developing temperature being of 50 to 200°C (col. 3, lines 60-64).

With regard to claims 7-9, Kubo et al. further discloses the heat and light-sensitive recording material having layer comprising color-forming component or dye-precursor being either enclosed in the core of the microcapsules or disposed in the shell of the microcapsules and a photo-polymerization composition or developer being again disposed outside of the microcapsules or enclosed in the microcapsules such that they are capable of reacting to each other to form color, the photo-polymerization composition further containing a photo-polymerization initiator (5) and a polymerizing substance (6).

With regard to claims 10, 11, Kubo et al. teaches the heat and light-sensitive recording material being provided with a photo-curable heat and light-sensitive recording layer having a dye-forming coupler such as phenolic compounds capable of coupling with the oxydant (diazonium salts) to form a dye, such that light irradiation cures an irradiated portion of the heat and light-sensitive recording layer.

Although Kubo et al., as modified by Mizutani et al., fails to teach the maximum irradiation energy being set between 0.01 to 50 mJ/cm^2, and the fixing light intensity being set between 10,000 to 50,000 lux, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the optimal values for the irradiation energy of the recording light source as well as the proper values for the illumination of the light fixing device, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kubo et al. in view of Mizutani et al., as applied to claim 1 above, and further in view of Kato et al. (U.S. 6,395,466 B1).

Kubo et al., as modified by Mizutani et al., discloses all the basic limitations of the claimed invention except for the developing heating temperature being set at ∓5°C at most with respect to a heating temperature setting.

Regardless, it is known in the printing art that the temperature distribution in a heat developing device should be kept at ∓1°C as a requirement. Katoh et al., for example, discloses a heat-developable image recording material whose temperature distribution variation would be kept within a strict requirement of ∓1°C during the heat development of the latent image.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Kubo et al., as modified by Mizutani et al., with the temperature distribution variation limitation as taught by Katoh et al. for the purpose of providing a sharp color image.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C Pham whose telephone number is (703) 308-1281. The examiner can normally be reached on M-F (9:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on (703) 308-3126. The fax phone numbers

for the organization where this application or proceeding is assigned are (703) 308-7722, (703) 308-7724, (703) 308-7382, (703) 305-3431, (703) 305-3432 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Hai Pham

HAI PHAM
PRIMARY EXAMINER
June 28, 2002